

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1, 3 and 5-10 are pending in the application. Claims 1, 3 and 5-10 are amended by the present amendment. Support for the amended claims can be found in the original specification, claims and drawings. No new matter is presented.

In the outstanding Official Action, Claims 1, 3 and 5 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent Publication 2002/0191567 to Famolari et al. (hereinafter “Famolari”) in view of U.S. Patent Publication No. 2002/0022683 to Beckmann et al. (hereinafter “Beckmann”) and U.S. Patent No. 6,122,483 to Lo et al. (hereinafter “Lo”); Claim 6 was rejected under 35 U.S.C. § 103(a) as unpatentable over Famolari in view of U.S. Patent No. 6,707,900 to Jellema et al. (hereinafter “Jellema”); Claims 7 and 8 were rejected under 35 U.S.C. § 103(a) as unpatentable over Jellema in view of Famolari; and Claims 9-10 were rejected under 35 U.S.C. § 103(a) as unpatentable over Jellema in view of Beckmann.

The undersigned appreciatively acknowledges the courtesy extended by Examiner Wendell by holding a personal interview with the undersigned on August 10, 2007. During the interview an overview of the invention was presented and proposed claim amendments were discussed. No agreement was reached during the interview pending a formal response to the outstanding Official Action. The contents of the interview is reflected in the remarks presented below, and in the amended claims.

In the outstanding Official Action, Claims 1, 3 and 5 were rejected under 35 U.S.C. § 103(a) as unpatentable over Famolari in view of Beckmann and further in view of Lo. Applicants respectfully traverse this rejection as amended independent Claims 1 and 3 recite novel features clearly not taught or rendered obvious by the applied references.

Independent Claim 1 recites, in part, a radio communication system having a radio network controller, base stations and mobile stations, to perform multicast communication, wherein

...the base station comprises:
a response signal transmitter configured to transmit, to the radio network controller, one response signal selected from a plurality of response signals transmitted from mobile stations, the plurality of response signal including a same group ID identifying a same multicast group to which the mobile stations are requesting to join.

Independent Claim 3, while directed only to the base station, is amended to recite substantially similar features. Accordingly, the remarks presented below are applicable to each of independent Claims 1 and 3.

Turning to the applied primary reference, Famolari describes a multicast address method for facilitating communication between nodes in “all IP” architectures that support CDMA soft handoff via IP multicasting wherein a multicast DHCP server allocates IP multicast addresses to mobile terminals from administratively scoped IP multicast addresses.¹

Famolari, however, fails to teach or suggest a base station including “a response signal transmitter configured to transmit, to the radio network controller, one response signal selected from a plurality of response signals transmitted from mobile stations, the one response signal including a same group ID identifying a same multicast group to which the mobile stations are requesting to join,” as recited in independent Claim 1.

In addressing the base station features of Claims 1 and 3, the outstanding Official Action relies on paragraphs [0054]-[0055] of Famolari. The cited portion of Famolari describes that a mobile terminal transmits an IP multicast address request to a multicast DHCP server which responds to the IP multicast address request by allocating an IP multicast address to the mobile terminal. The mobile terminal then registers its unicast IP addresses

¹ Famolari, Abstract.

with a multicast agent by transmitting its unicast IP addresses, IP multicast address and mobile terminal identifier to the multicast agent. By registering its unicast IP addresses with a multicast agent, the mobile terminal's unicast IP network connections between itself and the plurality of IP network nodes/IP base stations become multicast network connections that communication multicast messages between the mobile terminal and wireless IP network.

That is, Famiolari describes that even when the multicast agent receives a plurality of signals including a same IP multicast address from a plurality of mobile stations, the multicast agent transmits a unicast IP address table generated by all of the plurality of signals including the same IP multicast address, instead of transmitting at least one signal selected from the plurality of signals including the same IP multicast address and transmitting the selected signal.

Therefore, Famiolari fails teach or suggest transmitting “one response signal selected from a plurality of response signals transmitted from mobile stations, the one response signal including a same group ID identifying a same multicast group to which the mobile stations are requesting to join,” as recited in independent Claim 1.

Further, independent Claim 1 recites that the mobile station transmits a response signal that *includes a group ID identifying a multicast group to the base station* in response to *a control signal for the multicast group which the mobile station is joining in*. As noted above, Famolari simply describes obtaining an IP multicast address and registering this address to facilitate a multicast communication between the mobile node and an IP network node. Neither the request for an IP multicast address, nor the request for a registration of such address includes “*a group ID identifying a multicast group*.” Further, neither of these requests are in response to “*a control signal for the multicast group*,” as recited in independent Claim 1.

The first applied secondary reference Beckmann, is relied upon only to show a radio network controller, and also fails to teach or suggest the above-noted features recited in independent Claim 1. Similarly, Lo is directed to a public satellite network that holds an acknowledgment message for a predetermined period of time, but also fails to teach or suggest the above-noted features recited in independent Claim 1.

Accordingly, Applicants respectfully request the rejection of Claim 1 under 35 U.S.C. § 103 be withdrawn. For substantially similar reasons, it is also submitted that independent Claim 3 (and Claims 5 and 7 which depend therefrom) patentably define over Famolari, Beckmann, and/or Lo.

In the outstanding Official Action, Claims 6-8 were rejected under 35 U.S.C. § 103 as unpatentable over Famolari in view of Jellema. Applicants note that Claim 6 is canceled, and Claim 7 is amended to depend from independent Claim 3. Therefore, Claims 7 and 8 are believed to be patentable for at least the reasons discussed above.

Nonetheless, Jellema describes the method of dynamic load limiting in which a service switching point (SSP) dynamically alters a counter value based on a number of call attempts received at the SSP. Jellema indicates that when the number of call attempts is less than the counter value, the SSP forwards call attempts to a service control point (SCP).² Further, according to Jellema, when a number of call attempts exceeds the counter value subsequent call attempts are rejected by the SSP and the calls are not forwarded to the SCP.³

Thus, Jellema's system is not concerned with the content of the received requests, whatsoever. Instead, each response message is handled similarly and Jellema's system is used primarily to deny call requests during high traffic periods.

In contrast, independent Claims 7 recites that the base station includes a response signal counter which counts the number of response signals transmitted from mobile stations

² Jellema, col. 2, lines 20-23.

³ Jellema, col. 2, lines 36-40, and Fig. 2, steps 22-32.

“having a same group ID identifying a same multicast group to which the mobile stations are requesting to join.” In contrast, as noted above, Jellema simply describes a method for determining when there is a high volume of traffic on the system and limiting access to the system from all terminals, regardless of message content, during these high traffic periods.

Therefore, Famolari, and Jellema, neither alone nor in combination, teach or suggest a base station including a response signal counter which counts the number of response signals transmitted from mobile stations ***“having a same group ID identifying a same multicast group to which the mobile stations are requesting to join.”***

Accordingly, Applicants respectfully request that the rejection of Claim 7 (and Claim 8 which depends therefrom) under 35 U.S.C. § 103 be withdrawn.

Claims 9 and 10 were rejected under 35 U.S.C. § 103 as unpatentable over Jellema and Beckmann. Applicants respectfully submit that amended independent Claims 9 and 10 recite novel features clearly not taught or rendered obvious by the applied references.

Amended independent Claim 9 recites a radio network controller supporting multicast communication, the radio network controller comprising:

a receiver configured to receive a response signal transmitted from at least one base station, ***the response signal including a same group ID identifying a same multicast group to which the mobile stations are requesting to join, and information showing that the number of response signals transmitted from mobile stations is more than the predetermined number;***

an extractor configured to extract the information from the received response signal; and

a radio controller configured to perform radio controlling in multicast communication in accordance with the extracted information.

Independent Claim 10, while directed to alternative embodiment, is amended to recite substantially similar features. Accordingly, the remarks presented below are applicable to each of independent Claims 9 and 10.

As discussed above, according to Jellema, an SSP (e.g., base station) rejects received call attempts and does not forward the received call attempts to an SCP (e.g., radio network controller) when a number of call attempts exceeds a counter value (e.g., predetermined number). Instead, according to Jellema, the SSP only forwards the call attempts to the SCP when the number of call attempts is less than a counter value.

Thus, Jellema describes that when a predetermined number of call attempts is more than a predetermined number, the SSP does not send anything. This is in clear contrast to amended independent Claim 9 which clearly recites that the radio network controller receives a response signal transmitted from at least one base station, *the response signal including a same group ID identifying a same multicast group to which the mobile stations are requesting to join, and information showing that the number of response signals transmitted from mobile stations is more than the predetermined number*; and an extractor configured to extract the information from the received response signal. Jellema clearly fails to teach or suggest these claimed features.

Additionally, Applicants respectfully submit that Beckmann also fails to teach or suggest the claimed features lacking in the disclosure of Jellema.

Accordingly, Applicants respectfully request that the rejection of independent Claims 9 and 10 under 35 U.S.C. § 103 be withdrawn.

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 1, 3 and 5-10 is patentably distinguish over the applied references. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of the application is therefore requested.

Respectfully submitted,

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